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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/482,327	01/14/2000	Jeffrey Dwork	52352-314	6835

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EXAMINER

DINH, DUNG C

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/482,327

Applicant(s)

DWORK ET AL.

Examiner

Dung Dinh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1 and 4-11 is/are allowed.  
6) ☒ Claim(s) 12-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

***Response to Arguments***

Applicant's arguments filed 6/8/05 have been fully considered but they are deemed moot in view of the new ground of rejection below.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

**Claims 12-17, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al. US patent 5,299,313 and Daines et al. US patent 6,192,422.**

As per claim 12, Petersen teaches a network interface providing an interface between a network and a computer system essentially as claimed, comprising:

a descriptor management unit for managing receive descriptors pointing to receive buffers allocated to receive data from the network [col.2 lines 27-34, 51-60].

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Petersen does not specifically disclose an automatic flow control mechanism for automatically performing flow control in accordance with the number of available receive descriptors. In similar art of network flow control, Daines teaches a method of automatic flow control by sending pause frame to the sender when receive buffer exceeds a predetermined threshold [col.4 lines 4-16]. It would have been obvious for one of ordinary skill in the art to combine the automatic flow control mechanism of Daines with the network interface of Petersen because it would have enabled more efficient use of the network by eliminating wasted bandwidth due to over-run of the receive buffer.

As per claim 13, Petersen teaches the receive buffers are arranged in a memory of the computer system [col.1 line 65 to col.2 line 5].

As per claims 14 and 17, Daines teaches to suspend transmission when the receive buffers exceed a high threshold. This implies that the available buffer is at a low threshold value. The number to descriptors available is directly proportional to the number of memory available. Hence, it is apparent that the Petersen system as modified would suspend transmission when the number of descriptors falls below a threshold value.

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As per claim 15, Daines teaches resuming transmission when the number of descriptors rises above a second threshold [col.4 lines 12-16].

As per claim 16, it is apparent in the system as modified that the second descriptors threshold level is higher than the first level. Furthermore, it would have been obvious for one of ordinary skill in the art to set the second threshold higher than the first threshold because it would have provided an hysteresis effect to prevent rapid suspend/resume fluctuation at the threshold levels.

As per claims 19-20, they are rejected under similar rationale as for claims 12 and 14 above.

**Claims 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al. US patent 5,299,313 and Daines et al. US patent 6,192,422, and Allison US patent 6,549,960.**

As per claims 18 and 21, Petersen and Daines do not specifically disclose resuming after a preprogrammed time interval. However, in similar field of invention, Allison teaches a network interface which permit resume transmission after a preprogrammed time interval set by the receiver. Allison discloses this is standard IEEE 802.3 flow control protocol [see

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col.19 liens 45-68]. Hence, it would have been obvious for one of ordinary skill in the art to enable the sender station to resume transmission after a preprogrammed time interval because it would have enabled the system to conform to IEEE 802.3 specification.

### ***Allowable Subject Matter***

Claims 1,4-11 are indicated as allowable in the prior office action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (571) 272-3943. The examiner can normally be reached on Monday-Friday from 7:00 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached at (571) 272-3949.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dung Dinh  
Primary Examiner  
August 22, 2005